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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/769,696	01/30/2004	Jacek Stachurski	TI-35992	8612

23494 7590 07/02/2007

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EXAMINER	
KOVACEK, DAVID M	
ART UNIT	**PAPER NUMBER**
2609	

NOTIFICATION DATE	DELIVERY MODE
07/02/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/769,696	STACHURSKI, JACEK	
	Examiner	Art Unit	
	David Kovacek	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 August 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Specification

1. The disclosure is objected to because of the following informalities:

- Page 1, paragraph 1 references this application as a continuation-in-part of US Patent Application Nos. 10/668,396, 10/668,398, 10/668,844, and 10/668,846. This is improper because none of these applications have a common inventive entity or assignee with the current application. Upon brief investigation, it is the examiner's belief that references should instead be made to US Patent Application Nos. 09/668,396, 09/668,398, 09/668,844, and 09/668,846.

- Page 5, paragraph 2 contains a sentence beginning "Classify a frame with..." which is written using 2nd-person conjugation in the active voice. This is inconsistent with the rest of the application, which has been written using 3rd-person conjugation in the passive voice. The specification should be consistent throughout.

Appropriate correction is required.

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. **Claims 1-4** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding **claims 1 and 3-4,** these claims do not pertain to one of the four statutory categories of invention when given the broadest reasonable interpretation of one of ordinary skill in the art.

Specifically, each claim pertains to an "algebraic codebook method," which is interpreted to be synonymous with "a method for creating an algebraic codebook." As understood by one of ordinary skill in the art, these claims are written in such a way that would include an abstract idea: namely the usage of the algorithms disclosed in each claim.

It is noted that these claims pertain to the creation of an algebraic codebook. However, the broadest reasonable interpretation of "algebraic codebook" as understood by one of ordinary skill in the art includes both an abstract idea and functional descriptive material of software. Neither of these interpretations would pertain to one of the four statutory categories of invention.

It is the suggestion of the examiner that these claims be amended in such a way that the claimed subject matter does not include the nonstatutory grounds described above.

Regarding **claim 2**, this claim is dependent upon **claim 1** and is rejected for the same reasons.

Allowable Subject Matter

4. **Claims 1-4** are rejected under 35 U.S.C. 101 as noted above, but would otherwise be allowable over the prior art. The prior art does not anticipate or render obvious these claims for the reasons discussed below:

Regarding **claim 1**, the most pertinent prior art found was US Patent 5,717,825, hereinafter referred to as Lamblin.

Lamblin teaches an algebraic codebook (Col. 4, line 65 – col. 5, line 2) built by a method of indexing distributions of a plurality of pulses on a plurality of positions (Fig. 3; col. 9, lines 20-49; col. 12, lines 01-37).

However, Lamblin does not disclose the limitation of ordering the distributions based upon similar distributions of a smaller number of said pulses on a smaller number of said positions.

An additional limitation of **claim 1** not addressed in the prior art is the ordering of distributions without regard for the sign of any pulses at a particular position in said smaller set of positions.

Regarding **claim 2**, this claim is dependent upon allowable **claim 1**, and is allowable for the same reasons.

Regarding **claim 3**, the most pertinent prior art found was Lamblin in view of US Patent 6,988,065 hereinafter referred to as Yasunaga.

As noted above, Lamblin teaches an algebraic codebook method involving distributions of a plurality of pulses on a plurality of locations. However, Lamblin does not disclose any further limitations of **claim 3.**

Yasunaga further describes alternative methods of pulse distributions including using stored data of smaller distributions (Col. 23, lines 33-36), but does not disclose any other limitations of **claim 3**. However, Yasunaga does not teach weighted factors of distributions.

Neither Lamblin in view of Yasunaga nor other prior art additionally anticipate nor render obvious an ordering of distributions without regard for the sign of any pulses at a particular position in said smaller set of positions. Additionally, the limitation to discrete values of weighting factors in smaller distributions is also not taught as claimed.

Additionally, no motivation is evident to combine the teachings of Lamblin with the teachings of Yasunaga.

Regarding **claim 4**, the most pertinent prior art found was Lamblin in view of Yasunaga and in further view of US Patent 6,295,520 hereinafter referred to as Tian.

As noted above, Lamblin teaches an algebraic codebook method involving distributions of a plurality of pulses on a plurality of locations. However, Lamblin does not disclose any further limitations of **claim 4.**

As noted above, Yasunaga teaches alternative methods of pulse distributions including using stored data of smaller distributions (Col. 23, lines 33-36), but does not disclose any other limitations of **claim 4**. However, Yasunaga does not teach weighted factors of distributions.

Tian discloses an iterative method of pulse summing according to an index value (Fig. 3a-3b; Col. 6, lines 10-50). However, Tian does not teach this summation in relation to a weighted distribution of a plurality of pulses on a plurality of positions.

The combination of art further does not anticipate nor render obvious the limitations to discrete values of weighting factors in smaller distributions as claimed.

Additionally, no motivation is provided to combine the teachings of Lamblin with those of Yasunaga, or to further combine using the teachings of Tian.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kroon (US Patent 5,664,055) discloses a fast searching method of an algebraic codebook.
- Adoul et al. (US Patent 5,699,482) teaches a method of encoding speech using an algebraic codebook.
- Dejaco et al. (US Patent 5,751,901) teaches a method for selecting a codebook vector from an algebraic codebook.

- Adoul et al. (US Patent 5,754,976) teaches a method of searching an algebraic codebook in decoding an audio signal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Kovacek whose telephone number is (571) 270-3135. The examiner can normally be reached on M-F 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Eisen can be reached on (571) 272-7687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alexander Eisen
SPE
Art Unit 2609

DMK 06/11/2007